

A SHORT REVIEW OF THE

IN GLASGOW.

A Lecture

*Delivered to the Eastern Medical Society of Glasgow,
10th October, 1910.*

BY

HUGH A. McLEAN, M.B., CH.B.

REPRINTED FROM THE "GLASGOW MEDICAL JOURNAL," 1911.

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A Short Review of the Public Health
Administration in Glasgow.



FIG. 1.

Ideal reconstruction of the garden of the manse of Douglas from the Malendonar.

To illustrate Mr. M'Lean's paper.

A SHORT REVIEW OF THE
PUBLIC HEALTH ADMINISTRATION
IN GLASGOW.

A Lecture

*Delivered to the Eastern Medical Society of Glasgow,
19th October, 1910.*

BY

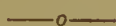
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A Short Review of the Public Health Administration in Glasgow.



WHEN old John M'Ure penned his *History of Glasgow*, in 1736, he referred to the city in these terms, "The City is situate in a pleasant valley elose upon the banks of the River Clyde. It is surronnded with cornfields, kitehen and flower gardens, and beautiful orehards, abounding with fruits of all sorts; whieh, by reason of the open and large streets, send forth a pleasant and odoriferous smell." M'Ure loved the eity which gave him sonship, but that his description of the place was justified is amply attested to by other early travellers.

Riehard Frank, in 1657, describes Glasgow as "The non-sueh of Scotland where an English florist may piek up a posie." The Rev. John Brown, a elergyman of the Chureh of England, writing of his visit to Glasgow in 1669, says of it, "For pleasantness of sight, sweetness of air, and delightfulness of its gardens and orehards filled with most delicious fruits, it surpasseth all other plaeces in this traet" (Fig. 1).

So mueh for the external aspeet of the infant eity. We shall now seleet from the burgh reeords some extraets whieh throw light on the contemporary sanitary administration. These extraets fall into four groups, and with the group treating of plague or pest we will now deal.

The city was visited by this scourge on several occasions, first in the year 1350, next in 1380, in 1504, then 1606, and, lastly, in 1646-7-8. Of the early visitations we have little authentic information, but of the two later epidemics we have ample and most interesting record. The earliest minute referring to plague is dated 29th October, 1574, and reads thus: "When the Provost, Baillies and Counsaile, understandand the contagious seikness callit the Pest to be newlie rissen within this realme, and for preservation of this guid toun thairfra, hes with ane consent devisit and maid thir statutes and ordinances eftir written." Now follows a long list of regulations, which I will condense as much as possible:—

1. In the first "It is statute and expreslie inhibit and forbiddin that na maner of persones, induellars or that cunes furtht of Leyth, Kirkealdy, Dysart, or Brunteland quhilkis an ellis infectit and suspect of the said pest, nor yet of any uther tounes or places that heirefter sall be suspect or fylit, presume to resort and travel to this toun or use traffique with the inhabitantes thair of and that nane of the inhabitantes of of this toun travell toward ony of the saidis places, or use ony kind of traffique with thame under the pain of deid.

2. "It is statute that na maner of persones induellars in this toun ressait in their houssis ony maner of stranger reparand thairto, except that thai (the strangers) cum first to the Provost, Baillies, or their Deputtis and present thair testimonials that it may be known quhairfra thai come.

3. "That na persone duelland outwith the portes resave ony stranger in ludging without license of the Provost and Baillies.

4. "It is statute and ordanit that gif ony persone happinis fra this time furtht to fall seik that the maister of the house incontinent cum to the visitouris and sercharis of the gait and schaw the samyn that thai may be sichtit, and gif ony persone happinis to deceis the maister of the hous sall cum to the visitouris appoyntit for sighting thair of ere thai be wyndit, and for further performing of this statute thai have maid thir persones underwrittin to be sersaries of the toun, ilkane in the gaittis quhair thai duell, quha sall pass twys in the daye throcht the gait apoyntit to thame, viz., in the mornyng and evinnyng and visie and inquire of ilk hous that nane be seik but it be schawin to thame." Then follows seven districts with the names of the searchers, generally four in number, appointed to each. All the city ports were ordered to be repaired and watch kept. They were ordered to be locked at night, and the keys delivered to a Baillie.

Further, it "ordanes the Seulehouss Wynd and all the vennelles to be simplieiter condampnit and stekit up."

If one were asking a medical officer of health nowadays what precautionary measures he would adopt under fear of an epidemic—precautionary, for, mark you, pest had not yet appeared—I do not think he could have gone much further than to have said—

1. "I would prohibit intercourse with infected places.
2. "I would institute house-to-house visitation.
3. "I would order all sickness to be notified at once under penalty.
4. "I would prohibit citizens receiving strange lodgers without being licensed to do so.

"5. I would prohibit any lodger being received who had not a clean bill of health.

"6. I would, further, simplieiter condemn and close certain spots or alleys where I should fear that the epidemic would spread rapidly if it got root;" in fact, he could hardly go further than repeat those ordinances of the year of grace 1574. Between this date and 1606, when plague appeared, there are frequent minutes, all in one strain, prohibiting entrance to the city to travellers unless they are provided with "ane sufficient and authentik Testimoniall," and ordering the city ports to be kept in good repair and watched closely.

We now arrive at one dated September, 1606, which reads thus:—"Tryell being tane of the seikness in Archibald Muir's hous and Marion Walker his mother and fund to be the Plague ordanis to be askit of the said Marion quha last frequentit with her and what scheraris schewr with her and quhaever beis inelosit in thair houssis: quhaevir that dissobeyis to be halden as pestiferous personnes and transportit to the Muir with thair haill houshaldes and guidis and ordanis all personnes quha his dogges or eattis that thai athir keipe thame fast or hang theme, ordanis all stranger beggaris to depart of this toun incontinent."

Now follows a most important minute, as it is the first definite notice of the treatment of infectious disease at the expense of the city.

30th September, 1606.—"The Provost, Baillies and Counsale for help and supplie of the puir of this Burgh that may happen to be inelosit or removit to the Muir for the Plague that may nocht susteine thameselfis hes ordanit that Matthew Trumble, Baillie, delivers £100 of the reddiest of the taxatione that is in his handis to the Master of Works and to make compt thair of to the Provost, Baillies and Counsale."

There are further minutes, but simply repetitions of warnings neither to approach suspected places nor to allow entrance to merchants from these places. This epidemic, moreover, was probably not acutely severe, as there is no further minute referring to the actual presence of plague in Glasgow for forty years, although from that minute one might argue that the probability was that during that time the plague had never been absent, but had been smouldering away like a slow fire.

This minute, dated 5th November, 1646, runs thus:—"The foursaides Bailyes and Counsell feering the Plague of Pestilence to increase in this city they therefore did mak choyce of the persones following to be quartermasters in the several bounds beneathe designit and ordanes thame to tak up the names of eurie familie and to visit eurie familie, ilk day, and tak notice of their health to the effect they may reporrit to the magistrates quher they find any seik personne. Ordanis intimatione to be maid be touk of drum that na maner of persone goe out to the muir quher the foull personnes are without leive of the Magistrates and to certify all theis quho does in the contraire shall be put out to the muir withe the hail families they are in."

The moor referred to lay to the north of the city as then existed, and was situated about the vicinity of Alexandra Parade. Huts were erected for the accommodation of the stricken people, and in our next minute we note the appointment of a manager or superintendent.

26th February, 1647.—"Jas. Robiesoun, Baxter, is made choyce of to be visitour (or superintendent) of the muire quhair the unelcane folkis ar and to set down in a register all occurrintes daylie and to tak notice of the graves."

That the people were alive to the dangers of infected filth is amply attested to by this record, 10th March, 1647:—"Anent the taking away of suspect fuilzie it is thoelt expedient that Thos. Stewart be hyrit to goe with ane hors and clos cairt to remove it."

The paternal interest of the Council in the inmates of the isolation camp on the Town's Moor did not cease with the appointment of a superintendent, but, as our next minute bears out, they kept in constant touch with the sufferers. This is dated 17th July, 1647, and reads, "It is ordaneit that ane counsellor weeklie and he to choose ane uther honest man in the toune to goe with him and that they tak ane list of all that ar on the muir and that they deburse to Jas. Robesoun suche money as he sall require to sustein the pair on the muir

and to viseit the muir tweis or threyes in the week and to give in thair compts ilk Setturday with list of all on the muire and quhat persones are deid thair that week and to try that ilk puir on the muir get thair allowance."

Not only were the infected persons cared for, more or less, but some effort was made to disinfect the infected houses, for by minute of Council (31st July, 1647) "It is appoynted for better expending of the cleanging of houses that James Walker and ane uther be made eleingers:" also, other two men were appointed to "elange the rest of the foule houssis and to elange the clouthes on the muir and appoints the Master of Works to buy ane hors to be employit in drawing furthe of foule eloathes and sweepings."

References to plague are now absent for nearly a year, but from minutes following it is evident that the virulence of the epidemic was in no way abated, and the next extraet which attracts our attention is dated 22nd July, 1648, which bears that plague was increasing, and orders the quartermasters to see that all, old and young, in their divisions appear before them ilk morning, any sick or dead to be reported at once to the magistrates: and possibly being somewhat excited in panic, the magistrates further prohibit "all persones to repare to any wyne houss or aill houss bot to command all to keep thare awin families and to abstain from idle wandering through the toun."

In the minute which follows we have evidence that the alarm was genuine, and that there was cause to exercise extra carefulness.

5th August, 1648.—"The Pestilence, as the pleasure of God, is groune hotter heir nor his bein siene heirtofior," and the magistrates, being unable themselves to cope with all the work, they therefore chose other ten persons to superintend, and endowed them with like authority as themselves. A week later another minute bears out the critical condition of the city—there were so many living at the town's expense either on the moor or at home, and those who could contribute to the expense had left the town, and so the treasurer is instructed to borrow 2,000 merks to meet the obligations. This, however, seems to have been the dark hour before the dawn, as the disease seems to have died out, possibly from want of fuel, and the next two minutes have reference to the payment of Johne Hall (26th August, 1648), chirurgion, "for his serviee in attending the magistrates at all times anent the Pestilence, and in attending those who were under suspicione of the Pestilence in respect he tuck nothing

frae nae maner of personne, naither frae poor nor rich for his paynes."

In the session records for 1648 we have an entry ordaining a solemn thanksgiving for the removal of the pestilence. We have spent some time over those extracts, as they are a rather interesting commentary on contemporary sanitary administration, and because they exhibit a marked, one might almost say extraordinary, similarity to what is commonplace routine to-day. Note that in this primitive, almost tribal, community we find in operation certain regulations which are to-day deemed the essentials of satisfactory sanitary administration :

1. Compulsory notification.
2. House-to-house visitation : districts mapped out, and certain quartermasters or sanitary inspectors appointed to each.
3. Compulsory removal, rich and poor alike, to the isolation camp on the Town's Moor, with the corollary of treatment and upkeep at the town's expense.
4. Appointment of a superintendent to manage the camp, with visitation by a counsellor twice or thrice weekly.
5. Cleaning of infested houses and clothes, and removal in special closed carts of infested filth. To me it is a marvellous thing how a community such as our city then was could adopt, working empirically, measures which, in theory at least, are not improved upon to-day.

This brings us in to the second group of minutes, or those dealing with leprosy. The civic treatment, or want of treatment, of this affliction centered round the Leper Hospital in Gorbals. To the name of hospital, as we understand it, this place had no claim. The hospital, which was dedicated to St. Ninian, was situated at the south end of Stoekwell Bridge, on the east side of modern Main Street, Gorbals. Some distance south, near the junction of Rutherglen Road and Main Street, there was a chapel. This persisted long after the rest of the institution was only a name. In Denholm's time (1797) the lower part of the chapel was used as a parish school and the two upper storeys as a prison ; in fact, the last vestiges were removed so recently as 1866.

The hospital is traditionally believed to have been founded by Lady Loehow, but of this there is no proof, and in all probability it was founded and supported by the bishops of the city. Subsequent to the Reformation the control devolved upon the Town Council, and especially upon the Water Bailie.

The earliest minute dealing with the disease is dated

19th January, 1573, although we have authentic information of the leper regulations prior to this time. The minute, which is typical of the others, runs thus: "Marion Gardener, dochter to Steyen Gardener (and three other names), quhilkis personnes ar delatit as lepir, and ordanit to be vesit and gif they be fund sua to be secludit of the toun to the Hospital at the Brig end." Such records are common, and it would serve



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FIG. 2.
The Tolbuith.

no good purpose to repeat them. There are, however, one or two which have some little interest of their own, for instance, 10th October, 1581, "The heid court efter Michaelmas halden the Tolbmith (Fig. 2). Lepper Andro Lawson, Merchand (and five others), the Provest and Baillies ordains the persones above written to remain in thair awin houssis or ellis to pas beyond the brig to the hospitall." Does this mean that under certain conditions leprous persons might stay at home? The

lepers were allowed to leave the hospital and enter the town twice a week, on each Wednesday and Saturday, between the hours of ten and two. They were expressly forbidden to enter either their own houses or houses of friends, although, as our next minute tells us, this regulation was sometimes more honoured in the breach than in the observance. They were suffered to "gang upon the calsay syd, with thair musselis on thair faces and cloppers in their hands" to warn people of their approach. As we have hinted, however, these ordinances were sometimes not very faithfully kept, as this minute bears out. This is 1st May, 1582, "Ancient the ordinance to be uptaken, anent the lippir folkes quha contemptuallie contrair the auncient statutes of the toun, repairs thairin as thai were haill, and that na infectione nor evil sold cum of thair repair, of the quhillis lepper sum his special friends within the toun quha resavis thame and gifis thame intertinement in spite of the auld order, and without remeid be providit and the auntunt ordour tak effect grit hurt and inconvenient sall sum thair throw. Thairfor the Baillies orderes the auncient aith to be observit, and that thai repair, but two dayes in the oulk, and that in quiet and secreit maner, and gif ony of thair friendis resavis thame in thair houssis thai to be puneist at the sight of the Baillies and ordouris the officiares and Watter Baillie to coerce this act."

Shortly after this time the disease seems to have died out, and the hospital consequently fell into a ruinous state. When Slezer sketched the city from the south, in 1693, there is no trace of ruin or enclosed space at the Gorbals end of the Brig. When M'Ure wrote his history, in 1736, the last traces of the buildings had vanished. The records are almost devoid of interest from a public health point of view.

The third group of minutes which throw some light on our early sanitary administration are those dealing with what we might term "nuisances." One of the earliest is of date 3rd June, 1578, and reads, "It is statute and ordanit that the haill myddnes be removit of the hie gait." Similar injunctions are thereafter minuted with monotonous regularity, so much so that I fear that they were merely pious opinions and carried no terror with them. 20th October, 1599, there appears the customary "inhibitoune maid that na middinges lie upon the Heigait . . . longer than 48 hours." I think the first real effort to cope with this abominable practice of depositing all species of filth on the streets, in the handiest spot, was in 1608, the information being

contained in a minute of 16th July of that year. I will read the minute as it appears in the records, "James Inglis, Baillie, returnit fra the conventioun of Burghs halden at Selkirk with ane writ with ane copy of a letter from the Kings Majesty, direct to Sir John Drummond to be presentit to the convention of Burghs in the quhilk speciallie was continit that na manner of Fouilze sould be laid or keepit upone the streets, seen to any person, and that be reason the samyn is nocht only ineumlie and incivelle, but lykewayes verre dangerous in tyme of Plague and Pestilence and verie infectious of itself." An Act following this letter was passed by the Convention of Burghs allowing fifteen days to remove the nuisanees, and ordering certain penalties to the Burgh, "which puts nocht the said act and statute to executioun." This, coming from such a source, did good for some time, but very shortly we find that things had drifted back into the old rut.

The fourth group of minutes are for the most part unimportant, although I cannot leave this subject without giving you the true account of the origin of the Corporation milk depôt of blessed memory.

16th July, 1653.—"Ordanis the Thesaurer to pay to Robert Blair, weiver, £5 16 sehillings to helpe to put out ane of his bairnes to the fostering: His wyfe having broecht three children quhairof tua dyed and that she has no milk to sustein the infant liveing."

Now, the first question you will probably ask me is, how did this garden city compare in general health with our huge city of to-day? In answer, I would say that I cannot tell, as definite and accurate information is not available until too late a date to draw reliable conclusions. It is not, in fact, until the latter half of the eighteenth century that statistics which we *may* accept are to be had. These are contained in the "Bills of Mortality," published in contemporary journals. If we select one year it would be typical of all. In 1775 the general death-rate was 31.25 per 1,000; in 1909 it was 18 per 1,000; in 1775, deaths from zymotic diseases comprised 39.75 per cent of the total deaths. In 1909 this had so much improved that the deaths from zymotic diseases only comprised 12.5 of the total—surely proof, if further proof were needed, of the proposition that all infectious diseases become less virulent and less deadly in direct ratio as the sanitary efficiency of a city is increased, and as the housing and manner of living of the people improve.

The next point is of graver significance. In 1775, deaths

from diseases of the respiratory system amounted to 19·35 per cent of the total deaths; in 1909 they amounted to 22·4 per cent (in 1885 they comprised 35·21 per cent of total deaths). So that while our general death-rate has improved, and our zymotic death-rate has much improved, the death-rate from diseases of the respiratory system has actually increased—the direct and immediate result of herding the people together, which we shall deal with later on as density *plus* the gross pollution of the atmosphere.

One other point. In 1775 no less than 56 per cent of the total deaths took place under 5 years; in 1908 we had so far improved that the percentage is reduced to 40 per cent, but whether that is satisfactory is a matter between each one and his conscience. This, of course, is not a true comparison, as by this date the momentous changes were already starting which changed as with a wizard's wand the whole of our city. If we could have had statistics a century and a half earlier, then we would have been able to draw comparisons which would not have been odious to the infant city.

Glasgow maintained its semi-rural character until the end of the eighteenth century. It was a small cathedral and university town, with few and unimportant manufactures. About 1770 cotton was first imported to the city, and ten years later James Monteith wove the first web in Scotland. The Verreville Glass Works had been opened a few years previously. McIntosh had started his cudbear works in Ark Lane; Wellpark Brewery was erected, the turkey red industry was originated, the Clyde Ironworks were founded, and in 1792 at Scott and Stevenson's mill at Springfield the first Boulton & Watt engine for driving machinery by steam power was installed, and this was the lever which set in motion the feverish, unnatural, almost unparalleled growth of our city. It was not the introduction or use of machinery *per se*, for so long as the motive power was manual labour, wind, or water, you could have your factory beside a mountain stream or on the healthy, breezy uplands. Steam being dependent on coal, towns tended to develop round coalfields; similarly they developed round ironfields, and where both coal and iron were found the growth was often of mushroom rapidity.

Convenient places of export were required where coal and iron, and the multitude of manufactured articles resulting therefrom, could be exported and where raw material could be imported, and here in a nutshell we have the secret of the phenomenal growth of our city—situated in close proximity to the richest coal and ironfields in Scotland, and, in addition,

supplying, from its situation on the river—the value of which was only now becoming obvious—the very position which was required for convenient export.

While these changes were maturing in the last quarter of the eighteenth century, it was with the beginning of the nineteenth that Glasgow fairly started on its career as an industrial community, and experienced all the consequence of this great change. Works, factories, and mills were springing up; these required workers who required houses, and all this meant the localisation of the artisan population within confined limits. In ever increasing volume this stream of human atoms, drawn by the magnet of the city, was pressing into Glasgow from north and south, and east and west. They came to the districts already inhabited by the workers—singly, in families, in groups, in legions—and the older part of the city was ill adapted to bear this sudden, unforeseen tax on its accommodation. But still the human tide rolled on, until, no longer able to find harbourage in the wynds and closes, it burst its banks and overflowed into the neighbouring locality. The houses formerly occupied by the old gentry became rabbit warrens, if one may use the term respectfully and sorrowfully in speaking of human beings, and what had been back gardens became back lands. The closes grew and developed in their own morbid fashion. The wynds became the habitation of all the moral and physical bankrupts in the country. Common lodging-houses sprung up, which, as Hawkie remarked, often paid their rent in two nights. Hovels unfit for the proverbial dog became the residence of not one family, but families, one lodging-house keeper making it her boast “that at least each family had a bed to itself.” In short, Glasgow was developing “slums, the like of which were never seen in Christian land before,” and all this through having suddenly changed its character, and become a huge workshop.

Now, before going into detail, I desire to explain one or two terms connected with overcrowding. Overcrowding itself is of three varieties:—

1. Overcrowding of the soil with houses.
2. Overcrowding of the tenement with rooms.
3. Overcrowding of the rooms with people.

All three forms may exist independently, or may be all combined, and, needless to remark, the one increases and intensifies the evil effect of the other.

Of the first variety, overcrowding of the ground with houses, we may remark that every building placed on the

ground displaces so much air or removes the inmates so much further from the outer air, which purifies the atmosphere which they breathe, and the nearer the houses are to each other the less opportunity for nature to cleanse itself. In the very early history of our city this form of overerowding must have been praectically absent. This, for instance, typical of bye-gone Glasgow, illustrates what I say (Fig. 3). In this you might have dirty inhabitants or overerowded rooms, but still you have free access to every wind that blew—no overlooking tenements to shut out the fresh air and sunlight, those invaluable disinfectants of dame nature.



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FIG. 3.

Cottages at the "Bell of the Brae."

The second form, or overerowding of the tenement with rooms, naturally arises when the demand of housing accommodation becomes acute. Instead of continuing to build along the surface of the ground, they started to build upwards, and gave us those dreadful monstrosities, the high tenements: and, of course, the higher the abomination, the greater the opportunity for the third form of overerowding—the overerowding of the rooms with people—the worst form of overerowding, and has no necessary relation to the situation or strueture of the house.

Now, the number of people in any given district regulates what is known as the "density" of the locality. The area may be expressed in yards or miles, but for comparative purposes it is convenient to use the acre. If on an acre of ground you have residing 10, 50, or 200 people its density is then said to be 10, 50, or 200, per acre being understood, and we shall see afterwards that, other things being equal, the density controls the death-rate.

The two epidemic diseases which were assuredly and solely the result—the one of the awful density and the utter absence of sanitary conveniences, the other the absence of a water-supply for domestic purposes, not to speak of the supply so necessary in slum tenements for washing out purposes, the filthy habits and low moral status of the people who lived here; but, mark you, I do not blame the people, for how could any human being who had the misfortune to be born in one of these plague spots be clean physically or morally?—were typhus fever and cholera, and it is a remarkable thing that previous to this time Glasgow had been free from those scourges of overcrowding. Not only so, but during the epidemics of plague the town was small, and under one control, and was capable of being mapped out into small districts, which were under the supervision of some person who probably knew most of the dwellers in his ward by head mark; but now Glasgow was not even a cohesive whole—there were four independent magistracies, four boards of police, and four methods of assessment and administration.

We may now proceed, and I again intend giving you the views of other travellers. We will first hear the testimony of J. C. Symons, assistant commissioner on the conditions of the handloom weavers:—"I have seen human degradation in some of its worst phases, both in England and abroad, but I can advisedly say that I did not believe until I had visited the wynds of Glasgow that so large an amount of filth, crime, misery, and disease existed in one spot in any civilised country. The wynds consist of long lanes, so narrow that a cart can with difficulty pass along them; out of those open the closes, which are courts 15 to 20 feet square, round which the houses, mostly of three storeys, are built. The centre of the court is the dunghill, which probably is the most lucrative part of the estate to the laird, and which it would consequently be deemed an invasion of the rights of property to remove."

It is to me a sorrowful reflection to know that even yet almost 25 per cent of the population of our city reside, for I will not call it live, in dwellings of one apartment. It is so

difficult for people who live in houses of four or five apartments and upwards to realise what it means to inhabit a single apartment. As the late Dr. J. B. Russell, that prince of sanitarians, said, "Where can I find language in which to



From]

[“Old Glasgow Closes.”

FIG. 4.

clothe the facts of these poor people's lives and yet be tolerable?” These are the houses which provide the high death-rate of Glasgow: these are the houses which give to that death-rate the striking characteristics of an enormous proportion of deaths in childhood, and deaths from diseases of lungs at all

ages. I am very strongly of opinion that under no conditions can one of these places ever become a home in the proper sense of the word. For two old people, or widows, or two young people without family it may provide a suitable dwelling: but a home in which to rear a family—strong, physically and morally—it can never be.

We do not see the worst here (Fig. 4). The mere picture is utterly incapable of impressing on our senses the grossness of the misery, the unloveliness of the squalor, the reality of the dirt, and the all prevailing air of sullen hopelessness.

We now take up the "Official Report to the Poor Law Commissioners," by Dr. Neil Arnott. Listen to what he says:—"We entered a dirty low passage, like a house door, which led from the street through the first house to a square court immediately behind, which court, with the exception of a narrow path round it, leading to another long passage through a second house, was occupied entirely as a dung receptacle of the most disgusting kind. Beyond this court the second passage led to a second square court, occupied in the same way by its dunghill, and from this court there was yet a short passage, leading to a third court and a third dung heap. There were no privies or drains, and the dunghills received all the filth which the swarms of the wretched inhabitants could give, and we learned that a considerable part of the rent of the houses was paid by the produce of the dung heaps. Thus, worse off than wild animals, many of which withdraw to a distance and conceal their ordure, the dwellers in these courts had converted their shame into a kind of money with which their lodging was to be paid."

How sad and pitiful that human beings should have passed their lives in such an abyss, sweltering in this very inferno—born in it, living in it, dying in it. Surrounded by church and bible—how pitiful! What of the children who spend their lives under such conditions?

In general, towns are more productive and destructive of life than country districts. Cities have a higher birth-rate and a higher death-rate. This apparently simple statement takes on a more ominous construction when we look at it another way. In spite of their high death-rate, cities tend to increase in size and number of inhabitants; country districts, in spite of a low death-rate, have an ever-dwindling population. In other words, cities first destroy their own children, and then fill up their places with the children of strangers.

To keep up its normal population and grow in size a city

has to rely, not so much on its own children, for it cannot rear its own children into healthy adults, but, as Dr. J. B. Russell phrased it, "it receives selected lives," or lives raised under more favourable conditions of country life. Now, what I desire to bring home to you is this—first of all, the physique of country men, women, and children is superior to the physique of town-bred men, women, and children: secondly, year by year we find more people in the towns, fewer people in the country. This I make clear by reference to Fig. 5, which contrasts 1861 and 1910. Note that the great increase is in the chief towns, the great decrease in the rural districts, the intermediate towns having changed comparatively little.

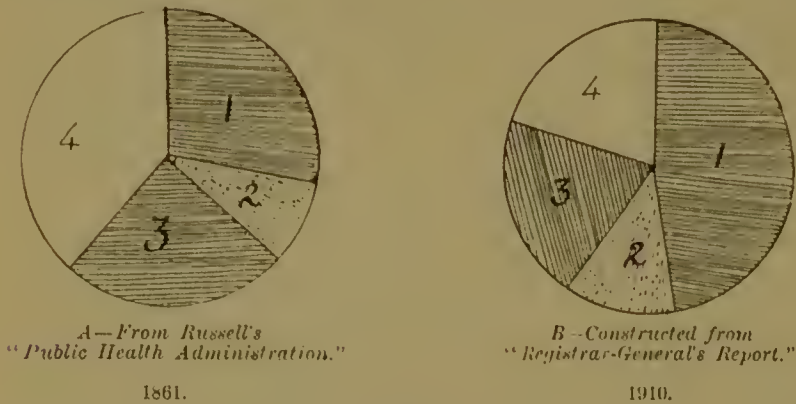


FIG. 5.

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| 1. | Proportion of population in principal towns. |
| 2. | " " " large towns. |
| 3. | " " " small towns. |
| 4. | " " " country districts. |

This brings us to our third point, namely, that year by year the country possesses an ever-increasing proportion of unselected lives and an ever-dwindling proportion of selected lives; hence, without labouring the point, we see how all important it is, even from the national aspect, that, if we cannot keep people from forsaking the healthy monotony of rural life in preference for the more stirring but less healthy conditions obtainable in urban communities, we must positively do everything to make the city less destructive and more conservative of life in all its stages.

However, we must get back to our descriptions. Here from a report of Dr. Kennedy, a police surgeon, in 1843, "All the closes in the Briggate are kept in a most abominable manner.

I may particularly mention No. 101 or Miller's Close, 87 or the Glue and Size Close, 65 or Scanlan's Close; but if a prize were to be given for abominations of all kinds, Miller's Close deserves it." Dr. Smith, another police surgeon, said, "The tenements which I have visited . . . are more fit for pig styes than dwellings for human beings. The entrance to these abodes is generally through a close some inches deep with water or mud or the fluid part of every filth. At night whole families sleep in one bed, and as there are several beds in each apartment, several families are made to occupy it. In short, of the moral degradation, grossness, and misery of these people no adequate description can be given." What does illness in a place like this mean? Dr. J. B. Russell in a careful study of the vital statistics, with special reference to the Briggait and wynds in 1886, found that 25 per cent of the illness in that district was treated at the public expense. Of those who died, 37 per cent were interred at the expense of the ratepayers. Of the children, 10 per cent were born in the Maternity Hospital, and 45 per cent through the attention of nurses supplied from that or similar institutions. He found that it sent large contingents to industrial homes, reformatories, day feeding schools, free breakfast tables, &c.; he called it "a sort of running sore upon the body of the community." I have spent some time and perhaps multiplied those indictments against our sanitary morality, but it was absolutely necessary to make clear the origin of the two scourges of this period, typhus fever and cholera. Now, we know how they arose, How were they treated? By treatment, of course, I use the term in its broadest sense, not what drugs and animal comforts were prescribed, but rather what means were adopted, not only to stamp out the present epidemic, but to prevent their recurrence in the future. Well, in one word, cholera disappeared when the city stopped using the sewage-polluted water of the Clyde for domestic use and started to use the pure Loch Katrine. For the rest there was no treatment. How could there be when it was not realised by the people themselves that the sole and only cause of these diseases was bad water and filth plus overcrowding. It pleased them better to call them "a visitation of Providence," so the treatment simply became the panic treatment of each epidemic. Boards of health were formed, funds were hurriedly collected, not realising how much better it would have been to have paid a moderate premium for safety, than to have been mulcted in such heavy damages.

As we have heard, those various commissioners and the

local police surgeons were pointing out the cause and advocating the remedy, but they themselves were powerless; they could only awaken the citizens to the general danger in allowing the wynds and closes to exist; as long as the general body of citizens were willing to have those plague spots in their midst, the first essential to satisfactory treatment was absent; for though the fever or cholera might start in the closes, once started, it was no respecter of persons, and touched with the icy hand of death the dweller in Blythswood as well as the unfortunate of the slums. It overflowed from the wynds. It insinuated itself into the Royal Infirmary; it occupied 60 per cent of the beds in the Royal. It compelled the directors to build the fever block. Then, as Dr. Russell put it, "In due time the disease began to decline, it shrank within the capacity of the Royal Infirmary; the temporary hospitals were pulled down. The doctors, nurses, and fumigators who had not been buried were paid off, a report of the receipts and disbursements was submitted, and the board or committee ceased to be. The play was over, the old properties were not even stowed away, they were burned."

Away back in 1547 we saw a definite anticipation of prevention, which is the keynote to-day in the treatment of all diseases. Here we have no such thing: all that was done was, as the Act put it, "relief to the sufferers and the safe and speedy interment of those who died." The one advantage which cholera possessed was that for its treatment (so-called) sheds or shelters might be erected and medical attendance, drugs, food, &c., might be provided from the rates, whereas with fever there was no help but such as came from voluntary sources or that fund of mystery, the Common Good. On one or two occasions during the past few years the weekly death-rate of the city has touched the phenomenally low figure of 12 per 1,000. The various causes which have operated together to bring this most creditable state of affairs about should, properly speaking, be included in any review of the public health administration. How, after much tribulation, we came into our water-supply, without which a healthy Glasgow was not conceivable; the evolution of the systems of cleansing and sewage disposal, from the period when each householder was his own disposer, until to-day, when, with the completion of the Shieldhall works, our sewage disposal scheme may now be said to be complete; the operations of the Improvement Trust, the provision of parks and open spaces, the baths and washhouses, and so on. Considerations of time alone prevent me from dealing with those, so we will

confine ourselves almost entirely to the actual steps which led up to all the complex machinery which is to-day familiarly spoken of as "the Sanitary." In 1857 a "Committee of Nuisances" was formed, and this was the first acknowledgment that the public health was worthy of the public care. Two years later Mr. (afterwards Lord Provost) John Ure submitted a scheme for the improvement of the sanitary conditions of the city. He proposed to appoint a new official—a medical officer—with a staff of inspectors, whose duty it would be to discover and remove nuisances and to take the oversight of infectious disease, all to be under the control of the Committee of Nuisances: and those proposals were approved of by the Town Council. Not only so, but those and other proposals, relative to cellar dwellings, overcrowding, sanitary conveniences, &c., were embodied in the Police Act of 1862. This enacted that "one or more medical officers must be appointed, and that one or more inspectors of nuisances might be appointed;" but while this Act created certain new offices, it did not specifically authorise the creation of officials to fill them; for instance, the duties of the inspector of nuisances and of common lodging-houses might be discharged by the chief constable, or any of his lieutenants, or by the master of works, who could, in addition, fill the offices of inspector of cleansing and inspector of lighting. Its vital importance lay in the virtual admission of the principle that if the citizen had obligations and responsibilities towards the civic state, the civic state or corporate body or municipality had no less obligations and responsibilities towards the citizen, and this principle being admitted the further development was natural and inevitable.

In the same year in which this Act was passed a Sanitary Committee was formed, and one of their first actions was to appoint Dr. (afterwards Sir) William Tennant Gairdner, K.C.B., as the first medical officer of health to the city, with the five divisional police surgeons as his assistants. A special "non-medical" inspector was also appointed as the "sanitary staff." This official's "office," so to speak, consisted, as the late Dr. J. B. Russell tells us, "of the use of a desk in the room in the Central Police Buildings used by Dr. McGill in his capacity as surgeon to the police force." Next year (January, 1864) other three non-medical officers, selected from the police force for special sanitary duty, were added to the staff, and two shops, 59-61 College Street, were rented at £25 per annum and fitted up as "The Sanitary Office." In the autumn of the same year the first municipal disinfecting and

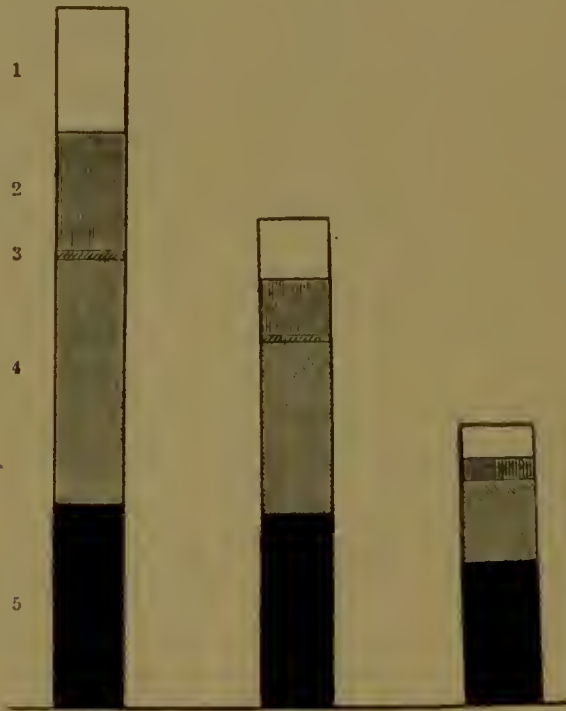
washing-house was established at 66 High Street; a staff for fumigating and linewashing infected houses was organised and placed under the control of the inspector of cleansing; and on the 25th April, 1865, was opened in Townhead the first municipal fever hospital.

Such, in brief, is the nucleus round which our elaborate sanitary administration has developed. One step led to another, although, even to non-medical minds, it must be obvious that the problem was far from being solved. We have now certain sanitary officials and a sanitary officer, but possibly even the newly appointed officials themselves hardly realised the aim, scope, and limitations of their new duties, and such powers as they possessed still had stamped on them the treatment of each emergency as it arose. The Act, however, only held good for five years, and in that time much was learned; above all, it was becoming recognised that all true treatment and the hope of the future lay not in cure but in prevention, not in dealing with some outbreak of infectious disease in a spirit of panic, not in making a great show in whitewashing certain closes or courts, not in compelling the removal of some nuisance which happened to be especially obnoxious; but in possessing powers to prevent the continuation of conditions which tended to induce liability to infectious disease. The new Act of 1866 authorised the erection and maintenance of municipal hospitals and washing-houses, made the appointment of a chief sanitary officer and assistants compulsory, authorised the compulsory removal of cases of infectious disease from common lodging-houses to the municipal hospitals, and this, in conjunction with the Scottish Public Health Act of the following year, put on a sound and established basis the central guiding and controlling authority of our public health service.

Perhaps the next set of contributing causes with which we should deal are those resulting from the operations of the Improvement Trust. The preamble of this Bill explains the reason of its being. It begins as follows:—"Whereas various portions of the city of Glasgow are so built, and the buildings thereon are so densely inhabited as to be highly injurious to the moral and physical welfare of the inhabitants," &c. The vital importance in these lines lies in the admission that the moral condition of a large proportion of the inhabitants of our great city was irrevocably settled by their physical surroundings. The Trust obtained powers to eject certain people from certain plague spots in order to improve their moral and physical welfare. No one, of course, would really

insist that the mere transference of those unhappy people from a bad, dirty, insanitary house to a decent clean house would itself create new aspirations or eradicate the bad habits which had become second nature. For these poor people are complicated problems. We must consider, not only their present condition, but we must recognise that they represent the result of successive generations of want and misery. Still there is no doubt that people brought up in such places, where cleanliness was necessarily absent, where common decency, from the very structure of their habitations, was utterly impossible, where one might as well look for figs on thistles or grapes on thorns as expect to find virtue and sobriety, to say nothing of refinement, flourishing on such unwholesome soils. Still I am quite convinced that it was a necessary step. It did not do all that was desired, or even all that was hoped for, but if it were [only for the acknowledgment of the debt which the corporate city owed to these poor people, the step was highly satisfactory. The net result seemed to be to cause their redistribution into houses better suited to their size, further from the centre of the city, *i.e.*, into less congested areas, and to compel them to pay nearly 20 per cent more in rent, and, in general, to greatly improve the method of excrement disposal. Closely related to the operations of the Improvement Trust, and, in fact, a natural development arising therefrom, was the seeking of and acquiring powers to "ticket" certain houses. Before explaining what ticketed houses are, let me show you the direct relation between the size of any given house and the health of its inhabitants. To do this we again seek the help of a diagram. Here in Fig. 6 (p. 26) we have three columns of different sizes, the height of the column representing the comparative death-rate (the statistics, I may say, refer to 1888). The large column represents houses of one and two apartments, and has a mean death-rate of 27.74; the next column represents houses of three and four apartments, and has a mean death-rate of 19.45; and the third column represents houses of five apartments and upwards, and has a mean death-rate of 11.23. First of all, you notice how much more prevalent the zymotic diseases are in small houses than in large houses, how much more prevalent are diseases of children; how much more prevalent are diseases of the lungs. So we see that these three diverse forms of diseases are undoubtedly predisposed to by conditions which these people do not make, but which are made for them, and from which there is no

escape. The system of ticketing houses was started under the stimulus of typhus fever. The power to do it is contained in the Glasgow Police Act, and is an intimation to landlords and tenants alike that there is a limit to the number of persons who may be accommodated within a given space. The power is discretionary—properly so, I think—and consists in being able to affix a ticket, generally



(From Russell's "Public Health Administration." Block kindly lent by Corporation of Glasgow.)

FIG. 6.

- 1 Zymotic diseases.
- 2 Nervous and other diseases special to children.
- 3 Accidents and syphilis in children.
- 4 Diseases of the lungs.
- 5 Miscellaneous.

of metal, on the door of certain houses containing not more than three rooms, and not exceeding in total cubic content 2,000 cubic feet, exclusive of lobbies. The ticket states the total cubic contents and the legal number of occupants. Originally the allowance was 300 cubic feet per adult person, now it is 400 cubic feet, but it should be at least, 600 per adult. The houses are liable to be entered night or day,

and the number of inmates checked, and if there be any transgression the offenders are prosecuted.

The great majority of those ticketed houses are what are known as made-down houses, or houses which were parts

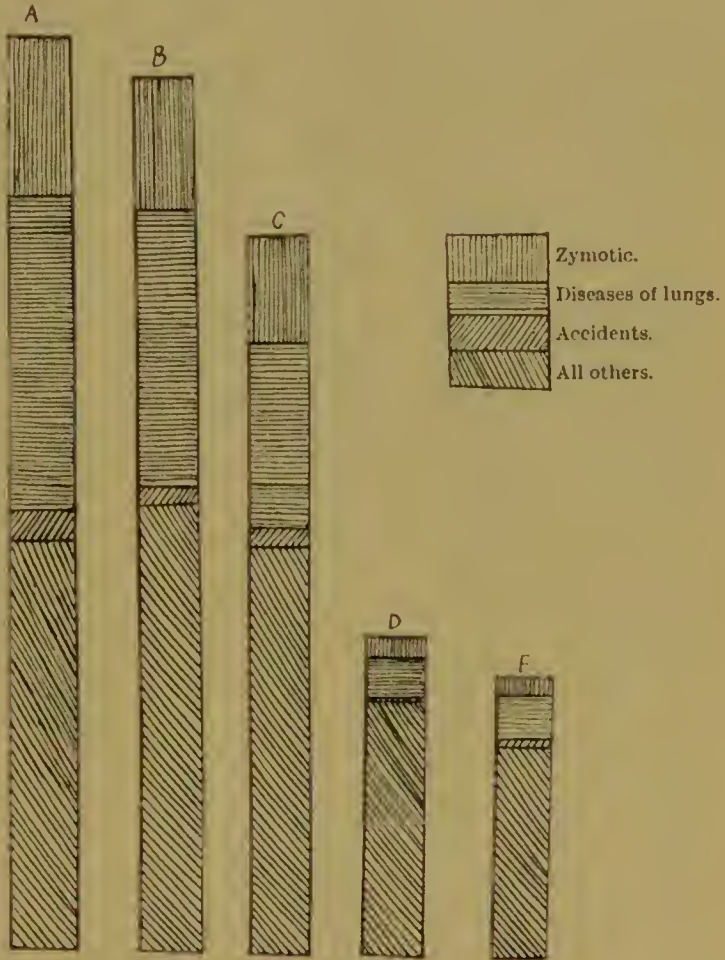


FIG. 7.

A Blackfriars.
B Cowcaddens.

C City.
D Pollokshields.

E Kelvinside.

of larger houses. You might, of course, have had a made-down house which was passable from a sanitary point of view, but unfortunately the bulk of them were in quite a different category.

Now, what relation do these places bear to the other

districts of the city to-day? Pollokshields contains 41 houses of one apartment, 2,545 houses of five apartments or upwards, a density of 14·3, no ticketed houses, and has a death-rate of 8 per 1,000. Cowcaddens contains 2,122 houses of one apartment, 249 houses of five apartments or upwards, a density 200, 2,834 ticketed houses, and a death-rate of 22 per 1,000.

Surely the moral is plain. Or look at it in another way. In Fig. 7 (p. 27) are five columns representing certain wards as noted. Blackfriars and Cowcaddens with their high densities and death-rates of 23 and 22 respectively, Pollokshields and Kelvinside with low densities and death-rates of 8 and 7 respectively. The key or index further illustrates the incidence of disease in these localities. Blackfriars, where the zymotic diseases comprise 17 per cent of the total. Kelvinside, where they comprise 2·3 per cent. Blackfriars, where diseases of the lungs comprise 32 per cent. Kelvinside, where they comprise 18·6 per cent. If one examines it further with reference to the age of death, it is found that in Blackfriars 23·5 per cent of the total deaths took place under one year, in Kelvinside 9·3 per cent; in Blackfriars 18·2 per cent died over 60 years, in Kelvinside 49·5 per cent died over 60 years; or to put that in its true perspective, in Cowcaddens only 18·2 per cent were spared to die over 60 years, as against nearly 50 per cent in Kelvinside, which were spared to die of truly natural causes. I mention these facts lest we be lulled to sleep by the pleasing reflection that the general health of the city has vastly improved; lest we forget that we have still areas with a density of 200, and a death-rate of 23.

Now, you say, "Having pursued this subject from Dan even unto Beer-sheba, what is it all about?" I think it was Lord Morley who said, "I do not in the least want to know what happened in the past, except as it enables me to see my way more clearly through what is happening to-day." For I would not have you imagine that the subject stops here. I put it to you as men of business, what would you say if, having some investment, unremunerative in its early years, and just as you looked for the anticipated return the investment simply became non-existent? If the city, or country, or empire had certain investments, say, in the form of children, unremunerative in the early years—not only unremunerative, but actually upon which there has been a very considerable expenditure in the form of clothing, feeding, educating, and training, the anticipated return being the discharge of all the multifarious obligations which the citizen owes to the complex

cosmos which we call "the State"—now I put it to you in its form of grossest commercialism, is it good business, if after there has been this large capital expenditure, to treat these investments in such an almost criminally negligent manner that they are allowed to disappear or die, when they might have been retained and yielded their return in the form of communal service; or if the men and women (also investments), each of whom has an average of sixteen days' illness per annum, have, through the persistence of insanitary and non-hygienic surroundings, perhaps that period extended to seventeen, eighteen, or twenty days per annum—not only so many more days in which they have ceased to be producers, but during which they never ceased to be consumers? Now, I again put it to you men of business in its form of grossest commercialism, "Is this the manner in which to treat a profitable investment? I put it to you as philanthropists and social reformers, if, when you enter one of these single apartments, and have your sense of delicacy outraged, your notions of propriety flouted, your whole moral being insulted in a brief visit, what must it be to be born there, to live there, to die there? How can you go there and expect sober men and virtuous women? Said Dr. Russell, and he knew all about it, "If grapes grew and ripened in the slums of Glasgow, or the orange and myrtle were as luxurious and plentiful as daisies and thistles in the fields, people would say 'it is a miracle,' and yet we go confidently in search of delicacy, refinement, and high-toned morality amid physical circumstances which are equally inimical to those finer growths and efflorescences of the moral nature of man." I put it to you as imperialists—are these the materials with which to build a lasting empire? For never forget that these one- and two-roomed houses at the end of a dark lobby, up a dark stair which opens off a sunless pit or court, are filled with restless, unhappy, unsettled mortals, who are thoroughly aware of the great contrast between their own miserable condition and the unspeakably happier state of their more fortunate fellow-mortals. Above all, remember that, while theories and learned treatises on social and economic discontent may stir the intellectual circle, the only lever which moves the masses and influences those restless dwellers in slumdom is not theory, but material misery. A hungry, ill-clad, badly housed labourer is a discontented, unsettled citizen, ready to grasp at any straw, prepared to accept any scheme which promises better things. And how could it be otherwise? For what interest have these people who live in a district with a density

of 200, with an infantile death-rate of 190 and a general death-rate of 23, what interest have they in desiring the continuation of things as they are? What is civic patriotism to a dweller in one of these back lands? What is pride of empire to an artisan with a grown family in a single apartment? And so you see what momentous problems underlie such commonplace words as sanitation, housing, cleansing, and so on.

I have endeavoured to sketch, briefly and roughly, the road along which we have travelled in our journey to sanitary perfection. When we shall reach the desired goal I cannot say; but this I do say, that the nearer we do approach to sanitary perfection and all that term implies, the more secure does the foundation become on which we rest—morally, socially, municipally, and nationally.

And surely the attainment of such an end is a consummation devoutly to be wished for by everyone whose civic confession of faith is bound up in our own familiar words, "Lord, let Glasgow flourish."

